

## APPENDIX A

General soil mapping units in Ada and Elmore Counties (Collette, 1980; Noe, 1991) where there are extant *Lepidium papilliferum* populations (Conservation Data Center, 1995).

### ***Soils on Lacustrine Foothills - Ada County***

#### ***Quincy-Lankbush-Brent***

Nearly level to very steep, excessively drained and well drained, very deep soils. *Quincy* (Torripsamment): 20 percent of the map unit area; formed in eolian deposits on south-facing sideslopes of alluvial terraces. *Lankbush* (Haplargid): 20 percent of the map unit area; south and west-facing side slopes of alluvial fans and terraces. *Brent* (Paleargid): 15 percent of the map unit area; north and east-facing slopes of terraces.

### ***Soils on Alluvial Terraces, Basalt Plains, Dissected Alluvial Plains, and Alluvial Fans - Ada County***

#### ***Tennile-Chilcott-Kunaton***

Nearly level to very steep, well-drained, shallow to very deep soils associated with the highest alluvial terrace south of the Boise River. *Tennile* (Haplargid): 15 percent of map unit area; steeper positions on high alluvial terraces and sideslopes of drainageways. *Chilcott* (Durargid): 15 percent of map unit area; nearly level on alluvial terraces and basalt plains. *Kunaton* (Durargid): 10 percent of map unit area; gentle ridges and slightly convex areas on the basalt plains.

#### ***Chilcott-Kunaton-Sebree***

Nearly level to sloping, well drained, shallow and moderately deep soils. Soils developed in loess or silty alluvium. *Chilcott* (Durargid): 25 percent of map unit area; mainly level high alluvial terraces and basalt plains. *Kunaton* (Durargid): 15 percent of map unit area; gentle ridges and slightly convex areas on the basalt plains. *Sebree* (Durargid): 10 percent of map unit area; mainly nearly level, on intermediate positions on the high alluvial terraces and on the basalt plains. Occur as small, subrounded, slick spots throughout areas of the Chilcott and Kunaton soils.

#### ***Power-McCain-Purdam***

Nearly level to sloping, well drained, shallow and moderately deep soils. These soils formed in loess or silty alluvium over coarser textured alluvium or basalt. *Power* (Haplargid): 35 percent of map unit area; mainly level or slightly concave; on the alluvial terraces and the basalt plain. *McCain* (Haplargid): 30 percent of map unit area; mainly on ridges and near rock outcrops on the basalt plains. *Purdam* (Durargid): 10 percent of map unit area; mainly on higher positions on the alluvial terraces.

#### ***Scism-Truesdale-Turbyfill***

Nearly level to steep, well drained, moderately deep and very deep soils. These soils developed in loess or silty alluvium and eolian deposits. *Scism* (Durorthid): 35 percent of map unit area; on basalt plains. *Truesdale* (Durorthid): 25 percent of map unit area; on basalt plains in southern part of the area. *Turbyfill* (Torriorthent): 10 percent of map unit area; on basalt plains mainly in drainageways or downslope from drainageways.

### ***Soils on Dissected Piedmonts - Elmore County***

#### ***Lankbush-Chilcott-Lanktree***

Nearly level to strongly sloping; moderately and very deep; well drained soils; alluvial plains and terraces; developed from alluvium from igneous rock. *Lankbush* (Haplargid); *Chilcott* (Durargid); *Lanktree* (Haplargid).

### ***Soils on Stream Terraces - Elmore County***

#### ***Timmerman-Royal-Buko***

Nearly level to strongly sloping, very steep, well and somewhat excessively drained soils; on medium and high terraces of the Snake River, formed in mixed alluvium. *Timmerman* (Camborthid); *Royal* (Camborthid); *Buko* (Camborthid);

### ***Soils on Dissected Terraces and on Plains of the Snake River - Elmore County***

#### ***Royal-Buko-Davey***

Nearly level to steep, very deep, well drained and somewhat excessively drained soils; on dissected terraces of mixed alluvium. *Royal* (Camborthid); *Buko* (Camborthid); *Davey* (Camborthid).

### ***Soils on Basalt Plains in Canyons and on Terraces - Elmore County***

#### ***Colthorp-Chilcott-Kunaton***

Nearly level to strongly sloping, shallow and moderately deep, well drained soils; on basalt plains formed in loess, mixed alluvium and weathered basalt.

*Colthorp* (Durargid); *Chilcott* (Durargid); *Kunaton* (Durargid).

## APPENDIX B

Soil Series from Ada and Elmore County Soil Surveys (Collette, 1980; Noe, 1991) Mapped on

**Areas with Extant *Lepidium papilliferum* Populations (Conservation Data Center, 1995).**

**Conservation Data Center Ecorank A**

**Bennett Road (#008) - basalt plains**

Elijah-Purdam silt loams, 0 to 8 percent slopes  
Chilcott-Elijah silt loams, 0 to 12 percent slopes  
Letha-Baldock loams, 0 to 2 percent slopes (riparian/floodplain)  
Dors fine sandy loam, 0 to 4 percent slopes  
Minidoka-Minveno silt loams, 0 to 4 percent slopes  
Purdam silt loam, 0 to 4 percent slopes  
Royal fine sandy loam, 4 to 12 percent slopes

**Simco Road (#015) - dissected piedmont**

Lanktree-Chilcott loams, 0 to 12 percent slopes  
**Initial Point (#019) - basalt /alluvial plains**  
Scism silt loam, bedrock substratum, 0 to 8 percent slopes  
Rock outcrop-Trevino, 5 to 20 percent slopes  
Potratz silt loam, 2 to 8 percent slopes  
Power-McCain silt loams, 2 to 8 percent slopes  
Purdam silt loam, 0 to 2 percent slopes  
Purdam-Power complex, 0 to 8 percent slopes  
McCain-rock outcrop complex, 0 to 15 percent slopes

**Kuna Butte (#024) - basalt /alluvial plains**

Power-McCain silt loams, 0 to 8 percent slopes  
**Orchard National Guard Training Area (#027) - basalt /alluvial plains**

Bowns stony loam, 0 to 8 percent slopes  
Bowns-rock outcrop, 0 to 15 percent slopes  
Chardoton stony silty clay loam, 0 to 2 percent slope  
Chardoton-Kiesel Variant silty clay loams, 0 to 2 percent  
Chilcott-Seabee bedrock substratum, 0 to 4 percent slope  
Power-McCain silt loams, 0 to 4 percent slopes  
Purdam silt loam, 0 to 2 percent slopes  
Power silt loam, 0 to 2 percent slope

**Tenmile Creek (#032) - Boise R. terrace/basalt plains**

Bram silt loam  
Brent loam, 8 to 12 percent slope  
Chilcott-Seabee, 0 to 4 percent slope  
Colthorp silt loam, 0 to 4 percent slope  
Elijah loam, 0 to 4 percent slope  
Kunaton silty clay loam, 0 to 4 percent slope  
Pipeline silty loam, 0 to 4 percent slope  
Rock Outcrop-Trevino, 5 to 20 percent slope  
Tenmile very gravelly loam, 0 to 65 percent slope  
Bissell loam, 0 to 2 percent slope (riparian)

**Conservation Data Center Ecorank B**

**Kuna Butte Southwest (#018) - basalt /alluvial plains**

Scism silt loam, bedrock substratum, 2 to 4 percent slope  
Power-Potratz silt loam, 2 to 4 percent slope  
Rock Outcrop - Trevino Complex  
Power silt loam, 0 to 2 percent slopes

**Crater Rings (#021) - basalt /alluvial plains**

Colthorp-Kunaton, 0 to 8 percent slopes

**Pleasant Valley North (#022) -**

**Boise R. terrace/basalt plains**

Kunaton silty clay loam, 0 to 4 percent slopes  
Kunaton-Seabee silty clay loam, 0 to 2 percent slopes  
McCain silty loam, 0 to 2 percent slopes  
Elijah silt loam, bedrock substratum, 2 to 4 percent slopes  
Colthorp silt loam, 0 to 2 percent slopes

**Mountain Home South (#029) - basalt plains**

Colthorp-Kunaton, 0 to 8 percent slopes

**Soles Rest Creek (#030) - dissected piedmont**

Lanktree-Chilcott loam

**Orchard Southwest (#042) - basalt /alluvial plains**

Power-Chardoton, 0 to 4 percent slopes  
Chilcott-Kunaton-Chardoton, 2 to 12 percent slopes

**South Cole Road / Tenmile Creek South (#048) -**

**Boise R. terrace/basalt plains**

Kunaton silty clay loam, 0 to 4 percent slopes

**Fivemile Creek (#049) - Boise R. terrace/basalt plains**

Elijah silt loam, 0 to 8 percent slopes

**Woods Gulch (#052) - lacustrine foothills**

Lankbush-Ladd, 30 to 60 percent slopes  
Quincy-Lankbush, 30 to 80 percent slopes  
Haw-Lankbush, 15 to 25 percent slopes

## APPENDIX B (continued .....)

### **Willow Creek (#056) - lacustrine foothills**

Haw loam, 12 to 30 percent slopes

Payette coarse sandy loam, 60 to 70 percent slopes

Lolalita coarse sandy loam, 30 to 60 percent slopes

### **Conservation Data Center Ecorank C**

#### **Chalk Flat (#010) - dissected terraces and plains of Snake R.**

Bahem silt loam, 0 to 4 percent slopes

#### **Soles Rest Creek (#020) - dissected piedmont**

Lanktree-Chilcott loam

#### **Initial Point Southwest (#026) - basalt/alluvial plains**

Chilcott-Brent silt loams, 0 to 2 percent slopes

Chilcott-Seabee silt loams, 0 to 2 percent slopes

Jennes fine sandy loam, 0 to 2 percent slopes (riparian)

#### **Christmas Mountain North (#028) - basalt/alluvial plains**

Bowns Rock Outcrop, 0 to 15 percent slopes

Chardoton-Kiesel Variant silty clay loams, 0 to 2 percent slopes

Chilcott-Seabee, bedrock substrate, 0 to 4 percent slopes

Elijah silt loam, bedrock substrate, 0 to 4 percent slopes

McCain silt loam, 0 to 4 percent slopes

McCain extremely stony silt loam, 4 to 12 percent slopes

Power silty loam, 0 to 4 percent slopes

Power-McCain complex, 0 to 8 percent slopes

Purdam silt loam, 0 to 2 percent slopes

Rock Outcrop-Trevino, 5 to 20 percent slopes

#### **Bowns Creek (#031) - dissected piedmont**

Haw-Farrot complex, 4 to 20 percent slopes

#### **Horse (#037) - lacustrine foothills**

Payette-Quincy complex, 35 to 60 percent slopes

#### **Orchard SSW (#041) - basalt/alluvial plains**

Searles-Ladd complex, 30 to 65 percent slopes

Ladd-Searles complex, 30 to 65 percent

#### **Westside Canal / Slade Flat West (#050) - basalt plains**

Colthorp-Kunaton, 0 to 8 percent slopes

#### **Kuna Butte Northwest (#057) - basalt/alluvial plains**

Rock Outcrop-Trevino, 5 to 20 percent slopes

Scism silt loam, 8 to 12 percent slopes

### **Conservation Data Center Ecorank D**

#### **Military Reserve Park (#012) - lacustrine foothills**

Quincy-Lankbush complex, 30 to 80 percent slopes

#### **Lower Halls Gulch - Halls Ridge (#023) - lacustrine**

### **foothills**

Payette-Quincy complex

#### **Melba Butte (#025) - basalt/alluvial plains**

McCain silt loam, 4 to 12 percent slopes

Rock Outcrop-Trevino

#### **Orchard Southwest (#035) - basalt/alluvial plains**

Chilcott-Seabee complex

#### **Hackberry Divide (#036) - lacustrine foothills**

Quincy-Lankbush complex, 4 to 12 and 30 to 80 percent slopes

#### **Goose Creek (#038) - lacustrine foothills**

Quincy-Lankbush, 30 to 80 percent slopes

Haw-Lankbush, 25 to 40 percent slopes

#### **Woods Gulch (#039) - lacustrine foothills**

Quincy-Lankbush, 30 to 80 percent slopes

Payette-Quincy complex

#### **Willow Creek (#047) - lacustrine foothills**

Haw-Lankbush, 15 to 25 percent slopes

Brent loam, low rainfall, 4 to 8 percent slopes

#### **Christmas Mountain (#053) - basalt/alluvial plains**

McCain extremely stony silt loam

Chilcott-Seabee complex, bedrock substratum, 0 to 2 percent slopes

#### **Glenn's Ferry Northwest (#058) - dissected terraces and plains of Snake R.**

Owsel-Purdam, 1 to 12 percent slopes

Elijah silt loam, 0 to 4 percent slopes

Elijah-Purdam complex, 0 to 8 percent slopes

## APPENDIX C

### Key to the Soil Taxonomy Classification Names of Soil Series listed in Appendix B.

Bahem:Coarse-silty, mixed, mesic Xerollic Calciorthids  
Baldock:Fine-loamy, mixed (calcareous) mesic Typic Haplaquepts  
Bissell:Fine-loamy, mixed, mesic Aridic Argixerolls (riparian)  
Bowns:Fine, montmorillonitic, mesic Xerollic Paleargids  
Bram:Coarse-silty, mixed, mesic Xerollic Calciorthids  
Brent:Fine, montmorillonitic, mesic Xerollic Paleargids  
Buko:Coarse-loamy, over sandy or sandy-skeletal, mixed, mesic Durixerollic Camborthids  
Chardoton:Fine, montmorillonitic, mesic Xerollic Paleargids  
Chilcott:Fine montmorillonitic, mesic, abrupt Xerollic Durargids  
Colthorp:Loamy, mixed, mesic, shallow Xerollic Durargids  
Dors:Coarse-loamy over sandy or sandy-skeletal, mixed, mesic Typic Calciorthids  
Elijah: Fine silty, mixed, mesic, Xerollic Durargids  
Farrot:Fine-loamy, mixed, mesic Typic Argixerolls  
Haw:Fine-loamy, mixed, mesic Aridic Calcic Argixerolls  
Jennes:Coarse-loamy, mixed, nonacid, mesic Xeric Torriorthents  
Kiesel Var.:Fine, montmorillonitic, mesic Xerollic Natrargids  
Kunaton:Clayey, montmorillonitic, mesic, shallow Abrupt Xerollic Durargids  
Ladd:Fine-loamy, mixed, mesic Typic Argixerolls  
Lankbush:Fine-loamy, mixed, mesic, Xerollic Haplargids  
Lanktree:Fine, montmorillonitic, mesic, Xerollic Haplargids  
Letha:Coarse-loamy, mixed (calcareous) mesic Aeris Haplaquepts  
McCain:Fine-silty, mixed, mesic Xerollic Haplargids  
Minidoka:Coarse-silty, mixed, mesic, Xerollic Durorthids  
Minveno:Loamy, mixed, mesic, shallow Xerollic Durorthids  
Owsel:Fine-silty, mixed, mesic Durixerollic Haplargids  
Payette:Coarse-loamy, mixed, mesic Aridic Calcic Argixerolls  
Pipeline:Loamy, mixed, mesic, shallow Xerollic Durargids  
Potratz:Fine-loamy, mixed, mesic Xerollic Camborthids  
Power:Fine-silty, mixed, mesic Xerollic Haplargids  
Purdam:Fine silty, mixed, mesic, Haploxerollic Durargids  
Quincy:Mixed, mesic Xeric Torripsamments  
Royal:Coarse-loamy, mixed, mesic Xerollic Camborthids  
Scism:Coarse-silty, mixed, mesic Haploxerollic Durorthids  
Searles:Loamy-skeletal, mixed, mesic Aridic Argixerolls  
Sebree:Fine-silty, mixed, mesic Xerollic Nadurargids  
Tenmile:Clayey-skeletal, montmorillonitic, mesic, Xerollic Haplargid  
Timmerman:Sandy, mixed, mesic, Xerollic Camborthids  
Trevino:Loamy, mixed, mesic Lithic Xerollic Camborthids

## APPENDIX D

Natric Soil Series and Soil Series Associated with Natric Soils from Ada and Elmore County Soil Surveys (Collette, 1980; Noe, 1991) that are Mapped on Areas with Extant *Lepidium papilliferum* Populations (Conservation Data Center, 1995).

Chardoton:Paleargids

Chilcott:Durargids

Colthorp:Durargids

Elijah: Durargids

Kiesel Var.:Natrargids

Kunaton:Durargids

Lanktree:Haplargids

McCain:Haplargids

Owsel:Haplargids

Pipeline:Durargids

Power:Haplargids

Purdam:Durargids

Sebree:Nadurargids

Trevino:Camborthids



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